

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) Apparatus for use in a motor vehicle, comprising:

a first steering link having a first socket at an end thereof;

a second steering link having a second socket at an end thereof;

~~a wheel having a rim defining a generally cylindrical inner wheel volume;~~

a steering knuckle having a spindle for supporting the a wheel for rotation about a wheel axis of rotation and a steering arm having a through hole, the through hole comprising a first tapered portion oriented toward a first side of the steering arm and a second tapered portion oriented toward a second side of the steering arm; and

a stud passing through the through hole in the steering arm and defining a link attachment axis-~~located within the inner wheel volume,~~ the stud comprising a first stud portion and a second stud portion, the first stud portion comprising a first ball portion disposed at a first end of the stud above adjacent the first side of the steering knuckle arm and received in said first socket for pivotal movement of said first link relative to said first ball portion and a first shank portion extending from the first ball portion, the first shank portion having a conical portion engaging the first tapered portion of the through hole, and the second stud portion comprising a second ball portion disposed at an opposite second end of the stud below adjacent the second side of the steering knuckle arm and received in said second socket for pivotal movement of said second link relative to

- said second ball portion and a second shank portion  
extending from the second ball portion, the second  
shank portion having a conical portion engaging the  
second tapered portion of the through hole, ~~the stud~~  
~~and attached first and second sockets forming a ball~~  
~~joint unit located substantially within the inner wheel~~  
~~volume.~~
2. (Currently Amended) Apparatus according to claim 1  
wherein the steering arm extends forwardly from the  
~~wheel axis of rotation.~~
3. (Original) Apparatus according to claim 1 wherein  
the steering knuckle is attached to a drive axle.
4. (Currently Amended) Apparatus according to claim 1  
wherein ~~one~~ the first and steering link is a drag link,  
and the second steering link is a tie rod.
5. (Cancelled)
6. (Currently Amended) The apparatus according to  
claim 1 wherein: ~~the stud comprises a first stud part~~  
~~and a second stud part;~~  
~~said first stud part comprising the first ball~~  
~~portion and a shank portion projecting from said first~~  
~~ball portion;~~  
~~said second stud part comprising the second ball~~  
~~portion and having~~ has a through opening extending  
axially through said second stud part; and  
~~said first shank portion of said first stud part~~  
~~extending~~ extends through said through hole in said  
steering arm and through said through opening in said  
second stud part.

7. (Currently Amended) The apparatus according to claim 1 wherein: ~~the stud comprises a first stud part and a second stud part;~~  
said first ~~stud part comprising the first ball portion and a shank portion projecting from said first ball portion,~~ the shank portion having has a male threaded end distal from the first ball portion;  
said second stud part ~~comprising the second ball portion and having~~has a female threaded hole; and  
said first shank portion of ~~said first stud part~~ extending extends through said through hole in said steering arm and said male threaded end ~~engaging~~ engages said female threaded hole in said second stud part to secure said first stud part to said second stud part.
8. (Currently Amended) The apparatus according to claim 1 wherein: ~~the stud comprises a first stud part and a second stud part;~~  
said first ~~stud part comprising the first ball portion and a shank portion projecting from said first ball portion,~~ the shank portion having has a female threaded hole in an end distal from the first ball portion;  
said second stud part ~~comprising the second ball portion and having~~has a through opening extending axially through said second stud part; and  
said first shank portion of ~~said first stud part~~ extending extends through said through hole in said steering arm and into said through opening in said second stud part from a first end thereof, a male threaded fastener being inserted into said through opening from a second end thereof and threadingly

engaging said female threaded hole in said first shank  
~~portion of said first stud part to secure said first~~  
stud part to said second stud part.

9. (Currently Amended) A ball joint unit for use in  
a motor vehicle steering linkage, comprising:

~~a first steering link having a first socket at an~~  
~~end thereof;~~

~~a second steering link having a second socket at an~~  
~~end thereof;~~

a steering knuckle for supporting a wheel and having  
a generally vertical through hole, the through hole  
comprising a first tapered surface oriented toward a  
first side of the knuckle and a second tapered surface  
oriented toward a second side of the knuckle; and

a first stud part having a first ball portion and a  
first shank portion extending therefrom into the  
through hole, the first shank portion having a conical  
shank portion that engages the first tapered  
~~surface passing through the through hole in the steering~~  
~~knuckle and comprising a first ball portion disposed at~~  
~~a first end of the stud above the steering knuckle and~~  
~~received in said first socket for pivotal movement of~~  
~~said first link relative to said first ball portion,~~  
and;

a second ball stud part having a second ball  
portion and a second shank portion extending from the  
second ball portion and into the through hole, the  
second shank portion having a conical shank portion  
that engages the second tapered surface  
~~disposed at an~~  
~~opposite second end of the stud below the steering~~  
~~knuckle and received in said second socket for pivotal~~  
~~movement of said second link relative to said second~~  
~~ball portion.~~

10. (Cancelled)

11. (Currently Amended) The ball joint unit according to claim 9 wherein: ~~the stud comprises a first stud part and a second stud part;~~

~~said first stud part comprising the first ball portion and a shank portion projecting from said first ball portion;~~

~~said second stud part comprising the second ball portion and having has a through opening extending axially therethrough said second stud part; and~~

~~said first shank portion of said first stud part extending extends through said through hole in said steering knuckle and through said through opening in said second stud part.~~

12. (Currently Amended) The ball joint unit according to claim 9 wherein: ~~the stud comprises a first stud part and a second stud part;~~

~~said first stud part comprising the first ball portion and a shank portion projecting from said first ball portion; the shank portion has a male threaded end distal from the first ball portion;~~

~~said second stud part comprising the second ball portion and having has a female threaded hole; and~~

~~said first shank portion of said first stud part extending extends through said through hole in said steering knuckle and said male threaded end engaging engages said female threaded hole in said second stud part to secure said first stud part to said second stud part.~~

13. (Currently Amended)      The ball joint unit according to claim 9 wherein: ~~the stud comprises a first stud part and a second stud part;~~

~~said first stud part comprising the first ball portion and a shank portion projecting from said first ball portion, the shank portion having~~ has a female threaded hole in an end distal from the first ball portion;

~~said second stud part comprising the second ball portion and having~~ has a through opening extending axially through said second stud part; and

~~said first shank portion of said first stud part extending~~ extends through said through hole in said steering knuckle and into said through opening in said second stud part from a first end thereof, a male threaded fastener being inserted into said through opening from a second end thereof and threadingly engaging said female threaded hole in said shank portion of said first stud part to secure said first stud part to said second stud part.

14. (Cancelled)